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PATENT

Response to Office Action Dated Aug. 28, 2003

Remarks

Claims 1-13 are in the case.

The summary page of the August 28, 2003 Office Action incorrectly states that claims 1-11 are in the case and that claims 1-11 are rejected. However, claims 1-13 are in the case. The merits of claims 12 and 13 are addressed in Paragraph 3 of the Office Action. Correction is requested.

Claim 1 has been amended to recite that the inner weir is "free of recesses" and that the overflow wall "surrounds the inner weir." No new matter is added. Support for these amendments can be found in original FIGS. 1-6. The amendment specifying that the overflow wall "surrounds the inner weir" is added for clarification and to more properly define the cooperation of the elements of claim 1. The amendment that the inner weir be "free of recesses" is added for clarity of the invention. It is believed that if the inner weir has recesses particles will get caught on the inner weir and migrate back into the processing area and contact the wafers during processing.

Turning now to the merits of the Office Action, claims 1-9 and 11-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either U.S. Patent 6,199,564 ("Yokomizo"), German Patent 3,824,138 (Germany '138), or U.S. Patent 4,753,258 ("Aigo") in view of U.S. Patent 6,001,191 ("Kamikawa"). However, the combination of these references is improper because there is no motivation to combine the references (as will be discussed below). The references are being combined using hindsight of the claimed invention. Such practice is expressly recognized as being impermissible. See MPEP § 2141 (citing Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5 (Fed. Cir. 1986)); MPEP § 2142.

Regarding paragraph 3, claim 1 is first rejected as being obvious under 35 U.S.C. § 103 over Yokomizo in view of Kamikawa. Specifically, Yokimizo is cited as disclosing "an inner

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weir, an overflow wall and a structure connecting the overflow wall and the inner weir to form a drainage basin having at least one drain hole....” It is recognized that Yokimizo does not teach “an over flow wall having a recess.” Kamikawa is cited as disclosing “an over flow wall (12, see fig. 3) having a recess with a bottom” and is combined with the teachings of Yokimizo to support an obviousness rejection of claim 1. This combination is improper. The process tank 21 disclosed in Yokimizo has an inner weir 21a having recesses and an outer wall 21b that does not have any recesses. See Yokimizo, FIGS. 4 and 9. During use, process liquid overflows only inner weir 21a. See Yokimizo, col. 9, lines 43-48. Outer wall 21b surrounds inner weir 21b and is provided specifically to form a barrier wall to form a basin for capturing the liquid overflowing inner weir 21a. See Yokimizo, col. 9, lines 43-48. Overflowing process liquid over outer wall 21b would be undesirable because the process liquid would get into air suction passages 24 provided exterior to process tank 21. See Yokimizo, col. 7, lines 27-38. Thus, outer wall 21b of the Yokimizo system is not “an overflow wall,” as is stated in the Office Action and is required by claim 1. Moreover, recesses are provided in process tank walls for the reason of facilitating the even and steady overflow of process liquid over that wall. Because the process liquid does not overflow outer wall 21b of the Yokimizo process tank, there would be absolutely no motivation or reason to provide recesses therein. In fact, providing such recesses would compromise the fluid containment function for which outer wall 21b is provided in Yokimizo. Therefore, even if outer wall 21b is viewed as being an overflow wall, one skilled in the art would not be motivated to provide recesses in the outer wall 21b, as is required by claim 1. Thus, the combination of Yokimizo with Kamikawa to show the feature of having an overflow wall with at least one recess is improper and the obviousness rejection of claim 1 that is based on Yokimizo must be withdrawn.

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Claim 1 is further rejected in paragraph 3 of the Office Action as being obvious under 35 U.S.C. § 103 over Germany '138 in view of Kamikawa. Specifically, Germany '138 is cited as disclosing "an inner weir, an overflow wall and a structure connecting the overflow wall and the inner weir to form a drainage basin having at least one drain hole...." It is recognized that Germany '138 does not teach "an over flow wall having a recess." Kamikawa is cited as disclosing "an over flow wall (12, see fig. 3) having a recess with a bottom" and is combined with the teachings of Germany '138 to support an obviousness rejection of claim 1. This combination is also improper. As can best be understood, the process tank disclosed in Germany '138 has an inner weir 1 having recesses 3 and an outer wall 2. See Germany '138, FIGS. 1 and 2. During use, process liquid overflows only inner weir 1. See Germany '138, FIG. 1. Outer wall 2 surrounds inner weir 2 and appears to be provided for capturing the liquid overflowing inner weir 1. See Germany '138, FIG. 1 and 2. Overflowing process liquid over outer wall 2 would be undesirable because the process liquid would apparently spill out of the system and onto the floor. Clearly, this result is undesirable for obvious reasons. Thus, outer wall 2 of the Germany '138 system is not "an overflow wall," as is stated in the Office Action and is required by claim 1. As stated above, recesses are provided in process tank walls for the reason of facilitating the even and steady overflow of process liquid over that wall. Because process liquid does not overflow outer wall 2 of the Germany '138 process tank, there would be absolutely no motivation or reason to provide recesses therein. In fact, providing such recesses, as is shown in Kamikawa, would compromise the fluid containment function for which outer wall 2 is provided and would result in process liquid more likely spilling onto the floor. Therefore, even if outer wall 2 is viewed as an overflow wall, one skilled in the art would not be motivated to provide recesses in the outer wall 2, as is required by claim 1. Thus, the combination of Germany '138 with Kamikawa to show the feature of having an overflow wall with at least one recess is

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improper and the obviousness rejection of claim 1 that is based on Germany '138 must be withdrawn.

Claim 1 is further rejected in paragraph 3 of the Office Action as being obvious under 35 U.S.C. § 103 over Aigo in view of Kamikawa. As with Yokimizo and Germany '138, Aigo is cited as disclosing "an inner weir, an overflow wall and a structure connecting the overflow wall and the inner weir to form a drainage basin having at least one drain hole...." It is recognized that Aigo does not teach "an over flow wall having a recess." Kamikawa is cited as disclosing "an over flow wall (12, see fig. 3) having a recess with a bottom" and is combined with the teachings of Germany '138 to support an obviousness rejection of claim 1. This combination is also improper. The process tank disclosed in Aigo has an inner weir 1 and an outer wall (not numbered) surrounding the inner weir 1 so as to form gutter 2. See Aigo, FIGS. 1-3. During use, process liquid overflows only inner weir 1. See Aigo, col. 3, lines 5-12. The outer wall surrounds inner weir 1 and is provided for capturing and containing the liquid that overflows inner weir 1. See Aigo, FIGS. 1-3. Overflowing process liquid over the outer wall would be undesirable because the process liquid would spill out of the system and onto the floor. Clearly, this result is undesirable for obvious reasons. Thus, the outer wall of the Aigo system is not "an overflow wall," as is stated in the Office Action and is required by claim 1. As state above, recesses are provided in a process tank wall for the reason of facilitating the even and steady overflow of process liquid over that wall. Because the process liquid does not overflow the outer wall of the Aigo process tank, there would be absolutely no motivation or reason to provide recesses therein. In fact, providing such recesses would compromise the fluid containment function for which the outer wall is provided and would result in process liquid being more likely to spill onto the floor. Therefore, even if the outer wall is viewed as being an overflow wall, one skilled in the art would not be motivated to provide recesses in the outer wall, as is required by

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claim 1. Thus, the combination of Aigo with Kamikawa to show the feature of having an overflow wall with at least one recess is improper and the obviousness rejection of claim 1 that is based on Aigo must be withdrawn.

Regarding the rejections of claims 2-9 and 11-13 in paragraph 3 of the Office Action, claims 2-9 and 11-13 are rejected as being obvious under 35 U.S.C § 103 using at least one of the combinations of references discussed above regarding claim 1. Claims 2-9 and 11-13 depend on claim 1. As discussed above, claim 1 is patentable over all of the cited combinations of prior art references. Thus, claims 2-13 are also patentable over the cited prior art rejections and the rejections of claims 2-9 and 11-13 contained in paragraph 3. As such, the rejection of claims 209 and 11-13 is improper and must be withdrawn.

Regarding paragraph 4, claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the applied art as applied to claim 1, in further view of Japan 5-152273. Claim 10 depends on claim 1. Claim 1 is patentable over the prior art cited for the reasons discussed above, thus, claim 10 is also patentable over the art cited.

It is believed that all grounds of rejection have been traversed or obviated, and that none of the prior art references, either alone or in combination, reasonably teach or suggest the claimed invention. It is requested that all of the rejections be withdrawn.

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Respectfully submitted,

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